

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Amend claims 1, 4, 20-22, 24, and 40, as follows.

Listing of Claims:

1 **1. (Currently amended)** A work-management method
2 comprising:
3 for a future point in time, determining a probability of availability
4 of each resource of a plurality of resources at said future point in time;
5 time, to obtain the probabilities of availability of the plurality of the
6 resources;
7 combining together the determined probabilities of availability of
8 the plurality of resources to obtain a number that is a result of the
9 combining; and
10 using the number to schedule new tasks for the resources for
11 the future point in time.

1 **2. (Previously presented)** The method of claim 1 wherein:
2 using the number to schedule new tasks comprises
3 scheduling for the future point in time no more than the number
4 of the new tasks to become available for servicing by the plurality of the
5 resources.

1 **3. (Previously presented)** The method of claim 2 wherein:
2 combining together the determined probabilities comprises
3 summing the probabilities to obtain the number.

1 **4. (Currently amended)** The method of claim 1 wherein:

2 determining at the probability of availability of each resource
3 comprises
4 determining an amount of time t that each resource of the
5 plurality of resources has been servicing a task by now;
6 for each of the resources, determining a probability $F(t+h)$ of
7 the resource servicing its task to completion within a total amount of time
8 $t+h$, where h is an amount of time;
9 for each of the resources, determining a probability $F(t)$ of the
10 resource completing servicing its task by now; and
11 for each of the resources, determining a probability P that the
12 resource will complete servicing its task at the future point in time the
13 amount of time h from now as $\frac{F(t+h) - F(t)}{1 - F(t)}$.

1 **5. (Previously presented)** The method of claim 4 in a call
2 center wherein:
3 the new tasks comprise calls; and
4 using the number to schedule new tasks comprises
5 in response to P , determining whether or not to initiate or
6 cancel an outbound call.

1 **6. (Previously presented)** A work-management method
2 comprising:
3 determining an amount of time t that a resource has been
4 servicing a task by now;
5 determining a probability $F(t+h)$ of the resource servicing the
6 task to completion within a total amount of time $t+h$, where h is an amount
7 of time;
8 determining a probability $F(t)$ of the resource completing
9 servicing the task by now;

10 determining a probability P that the resource will complete
11 servicing the task within the amount of time h from now as $\frac{F(t+h) - F(t)}{1 - F(t)}$;

12 and

13 in response to P , scheduling another task for servicing.

1 **7. (Original)** The method of claim 6 wherein:
2 scheduling comprises
3 in response to P , determining whether or not to initiate said
4 another task.

1 **8. (Previously presented)** The method of claim 6 in a call
2 center wherein:
3 the new tasks comprise calls; and
4 scheduling comprises
5 in response to P , determining whether or not to initiate an
6 outbound call.

1 **9. (Original)** The method of claim 6 further comprising:
2 performing the determining steps for a plurality of resources,
3 and
4 determining a number of the resources that will likely have
5 completed servicing their respective tasks within the amount of time h
6 from now as a sum of the probabilities P determined for individual ones of
7 the plurality of resources; wherein
8 scheduling comprises
9 in response to determining the number of the resources,
10 scheduling new tasks for servicing.

1 **10. (Original)** The method of claim 9 wherein:

2 scheduling tasks for servicing comprises scheduling no more
3 than the number of the tasks for servicing.

1 **11. (Original)** The method of claim 6 wherein:
2 determining a probability $F(t+h)$ comprises
3 obtaining historical task-completion statistics, and
4 from the obtained statistics determining the probability $F(t+h)$;
5 and
6 determining a probability $F(t)$ comprises
7 from the obtained statistics determining the probability $F(t)$.

1 **12. (Original)** The method of claim 11 wherein:
2 obtaining historical task-completion statistics comprises
3 obtaining a mean and a variance of time historically spent by
4 resources on servicing tasks to completion.

1 **13. (Original)** The method of claim 6 wherein:
2 determining a probability $F(t+h)$ comprises
3 obtaining historical task-completion statistics,
4 fitting the task-completion statistics into a lifetime closed-form
5 cumulative-probability distribution to determine parameters of the
6 distribution, and
7 evaluating the distribution with the determined parameters and
8 the total amount of time $t+h$ to obtain $F(t+h)$; and
9 determining a probability $F(t)$ comprises
10 evaluating the distribution with the determined parameters and
11 the amount of time t to obtain $F(t)$.

1 **14. (Original)** The method of claim 13 wherein:
2 obtaining historical task-completion statistics comprises

3 obtaining a mean and a variance of time historically spent by
4 resources on servicing tasks to completion;
5 the cumulative-probability distribution F comprises a Weibull
6 distribution; and
7 the parameters comprise a dispersion parameter and a
8 parameter of central tendency.

1 **15. (Original)** The method of claim 6 wherein:
2 determining an amount of time t comprises
3 determining the amount of time t that the resource has been
4 servicing a task of one of a plurality of different types of tasks; and
5 determining historical task-completion statistics comprises
6 determining the historical task-completion statistics for the one
7 type of tasks.

1 **16. (Original)** The method of claim 6 wherein:
2 scheduling another task comprises
3 in response to P initiating preparation of a task that may require
4 servicing by an agent at a later time.

1 **17. (Original)** The method of claim 6 wherein:
2 determining a probability $F(t+h)$ comprises
3 obtaining a historical histogram for task completion, and
4 evaluating a cumulative said probability with the obtained
5 histogram for the total amount of time $t+h$ to obtain $F(t+h)$; and
6 determining a probability $F(t)$ comprises
7 evaluating the cumulative probability with the obtained
8 histogram for the amount of time t to obtain $F(t)$.

1 **18. (Original)** The method of claim 6 wherein:

2 scheduling comprises
3 in response to P , canceling preparation of a task that could
4 require servicing by a resource.

1 19. **(Canceled)**

1 20. **(Currently amended)** A computer-readable medium
2 containing instructions which, when executed in a computer, cause the
3 computer to perform the steps of:
4 for a future point in time, determining a probability of availability
5 of each resource of a plurality of resources at said future point in time;
6 time, to obtain the probabilities of availability of the plurality of the
7 resources;
8 combining together the determined probabilities of availability of
9 the plurality of resources to obtain a number that is a result of the
10 combining; and
11 using the number to schedule new tasks for the resources for
12 the future point in time.

1 21. **(Currently amended)** A work-management apparatus
2 comprising:
3 a storage medium for storing instructions, and
4 a processor for executing the instructions, the medium and the
5 processor together comprising:
6 computer means for determining, for a future point in time, a
7 probability of availability of each resource of a plurality of resources at said
8 future point in time; time, to obtain the probabilities of availability of the
9 plurality of the resources;
10 computer means cooperative with the determining means for
11 combining together the determined probabilities of availability of the

12 plurality of resources to obtain a number that is a result of the combining;
13 and
14 means cooperative with the means for combining the
15 determined probabilities, for scheduling ~~for the future point in time~~ no more
16 than the obtained number of new tasks ~~for servicing to be serviced~~ by the
17 plurality of the resources at the future point in time.

1 **22. (Currently amended)** A work-management apparatus
2 comprising:
3 a storage medium for storing instructions, and
4 a processor for executing the instructions, the medium and the
5 processor together comprising:
6 means for determining an amount of time t that a resource has
7 been servicing a task by now;
8 computer means cooperative with the time-determining means
9 for determining a probability $F(t+h)$ of the resource servicing the task to
10 completion within a total amount of time $t+h$, where h is an amount of time;
11 computer means cooperative with the time-determining means
12 for determining a probability $F(t)$ of the resource completing servicing the
13 task by now;
14 computer means cooperative with both of the probability-
15 determining means for determining a probability P that the resource will
16 complete servicing the task within the amount of time h from now as
17
$$\frac{F(t+h) - F(t)}{1 - F(t)}$$
; and
18 means cooperative with the P-determining means and
19 responsive to P for scheduling another task for servicing.

1 **23. (Previously presented)** The apparatus of claim 21
2 wherein:

3 the means for combining together the determined probabilities

4 comprise

5 means for summing the probabilities to obtain the number.

1 **24. (Currently amended)** The apparatus of claim 21 wherein:

2 the means for determining ~~at~~the probability of availability of

3 each resource comprise

4 means for determining, for each resource of the plurality of

5 resources, an amount of time t that the resource has been servicing a task

6 by now;

7 means for determining, for each resource of the plurality of

8 resources, a probability $F(t+h)$ of the resource servicing its task to

9 completion within a total amount of time $t+h$, where h is an amount of time;

10 means for determining, for each resource of the plurality of

11 resources, a probability $F(t)$ of the resource completing servicing its task

12 by now; and

13 means for determining, for each resource of the plurality of

14 resources, a probability P that the resource will complete servicing its task

15 at the future point in time the amount of time h from now as

$$16 \quad \frac{F(t+h) - F(t)}{1 - F(t)}.$$

1 **25. (Previously presented)** The apparatus of claim 21 in a

2 call center wherein:

3 the new tasks comprise calls; and

4 the means for scheduling comprise

5 means responsive to P , for determining whether or not to

6 initiate or cancel an outbound call.

1 **26. (Previously presented)** The apparatus of claim 22

2 wherein:

3 the means for scheduling comprise
4 means responsive to P , for determining whether or not to
5 initiate said another task.

1 **27. (Previously presented)** The apparatus of claim 22 in a
2 call center wherein:
3 the new tasks comprise calls; and
4 the means for scheduling comprise
5 means responsive to P , for determining whether or not to
6 initiate an outbound call.

1 **28. (Previously presented)** The apparatus of claim 22
2 wherein:
3 the means for determining an amount of time t comprise
4 means for determining the amount of time t for each of a
5 plurality of resources;
6 the means for determining a probability $F(t+h)$ comprise
7 means for determining the probability $F(t+h)$ for each of the
8 plurality of resources;
9 the means for determining a probability $F(t)$ comprise
10 means for determining the probability $F(t)$ for each of the
11 plurality of resources, and
12 means for determining a number of the plurality of resources
13 that will likely have completed servicing their respective tasks within the
14 amount of time h from now as a sum of the probabilities P determined for
15 individual ones of the plurality of resources; and
16 the means for scheduling comprise
17 means responsive to determining the number of the resources,
18 for scheduling new tasks for servicing.

1 **29. (Previously presented)** The apparatus of claim 28
2 wherein:
3 the means for scheduling comprise
4 means for scheduling no more than the number of the tasks for
5 servicing.

1 **30. (Previously presented)** The apparatus of claim 22
2 wherein:
3 the means for determining a probability $F(t+h)$ comprise
4 means for obtaining historical task-completion statistics, and
5 means for determining the probability $F(t+h)$ from the obtained
6 statistics; and
7 the means for determining a probability $F(t)$ comprise
8 means for determining the probability $F(t)$ from the obtained
9 statistics.

1 **31. (Previously presented)** The apparatus of claim 30
2 wherein:
3 the means for obtaining historical task-completion statistics
4 comprise
5 means for obtaining a mean and a variance of time historically
6 spent by resources on servicing tasks to completion.

1 **32. (Previously presented)** The apparatus of claim 22
2 wherein:
3 the means for determining a probability $F(t+h)$ comprise
4 means for obtaining historical task-completion statistics,
5 means for fitting the task-completion statistics into a lifetime
6 closed-form cumulative-probability distribution to determine parameters of
7 the distribution, and

8 means for evaluating the distribution with the determined
9 parameters and the total amount of time $t+h$ to obtain $F(t+h)$; and
10 the means for determining a probability $F(t)$ comprise
11 means for evaluating the distribution with the determined
12 parameters and the amount of time t to obtain $F(t)$.

1 **33. (Previously presented)** The apparatus of claim 32
2 wherein:
3 the means for obtaining historical task-completion statistics
4 comprise
5 means for obtaining a mean and a variance of time historically
6 spent by resources on servicing tasks to completion;
7 the cumulative-probability distribution F comprises a Weibull
8 distribution; and
9 the parameters comprise a dispersion parameter and a
10 parameter of central tendency.

1 **34. (Previously presented)** The apparatus of claim 22
2 wherein:
3 the means for determining an amount of time t comprise
4 means for determining the amount of time t that the resource
5 has been servicing a task of one of a plurality of different types of tasks;
6 and
7 the means for determining historical task-completion statistics
8 comprise
9 means for determining the historical task-completion statistics
10 for the one type of tasks.

1 **35. (Previously presented)** The apparatus of claim 22
2 wherein:
3 the means for scheduling another task comprise

4 means responsive to P for initiating preparation of a task that
5 may require servicing by an agent at a later time.

1 **36. (Previously presented)** The apparatus of claim 22
2 wherein:
3 the means for determining a probability $F(t+h)$ comprise
4 means for obtaining a historical histogram for task completion,
5 and
6 means for evaluating a cumulative said probability with the
7 obtained histogram for the total amount of time $t+h$ to obtain $F(t+h)$; and
8 the means for determining a probability $F(t)$ comprise
9 means for evaluating the cumulative probability with the
10 obtained histogram for the amount of time t to obtain $F(t)$.

1 **37. (Previously presented)** The apparatus of claim 22
2 wherein:
3 the means for scheduling comprise
4 means responsive to P , for canceling preparation of a task that
5 could require servicing by a resource.

1 **38. (Previously presented)** The medium of claim 20 wherein:
2 using the number to schedule new tasks comprises
3 scheduling for the future point in time no more than the number
4 of the new tasks to become available for servicing by the plurality of the
5 resources.

1 **39. (Previously presented)** The medium of claim 38 wherein:
2 combining together the determined probabilities comprises
3 summing the probabilities to obtain the number.

1 **40. (Currently amended)** The medium of claim 20 wherein:

2 determining at the probability of availability of each resource
3 comprises
4 for each resource of the plurality of resources, determining an
5 amount of time t that the resource has been servicing a task by now;
6 for each resource of the plurality of resources, determining a
7 probability $F(t+h)$ of the resource servicing its task to completion within a
8 total amount of time $t+h$, where h is an amount of time;
9 for each resource of the plurality of resources, determining a
10 probability $F(t)$ of the resource completing servicing its task by now; and
11 for each resource of the plurality of resources, determining a
12 probability P that the resource will complete servicing its task at the future
13 point in time the amount of time h from now as $\frac{F(t+h) - F(t)}{1 - F(t)}$.

1 **41. (Previously presented)** The method of claim 40 for a call
2 center wherein:
3 the new tasks comprise calls; and
4 using the number to schedule new tasks comprises
5 in response to P , determining whether or not to initiate or
6 cancel an outbound call.

1 **42. (Previously presented)** A computer-readable medium
2 containing instructions which, when executed in a computer, cause the
3 computer to perform the steps of:
4 determining an amount of time t that a resource has been
5 servicing a task by now;
6 determining a probability $F(t+h)$ of the resource servicing the
7 task to completion within a total amount of time $t+h$, where h is an amount
8 of time;

9 determining a probability $F(t)$ of the resource completing
10 servicing the task by now;
11 determining a probability P that the resource will complete
12 servicing the task within the amount of time h from now as $\frac{F(t+h) - F(t)}{1 - F(t)}$;
13 and
14 in response to P , scheduling another task for servicing.

1 **43. (Previously presented)** The method of claim 42 wherein:
2 scheduling comprises
3 in response to P , determining whether or not to initiate said
4 another task.

1 **44. (Previously presented)** The medium of claim 42 for a call
2 center wherein:
3 the new tasks comprise calls; and
4 scheduling comprises
5 in response to P , determining whether or not to initiate an
6 outbound call.

1 **45. (Previously presented)** The medium of claim 42 further
2 comprising instructions which, when executed in the computer, cause the
3 computer to perform the steps of:
4 performing the determining steps for a plurality of resources,
5 and
6 determining a number of the resources that will likely have
7 completed servicing their respective tasks within the amount of time h
8 from now as a sum of the probabilities P determined for individual ones of
9 the plurality of resources; wherein
10 scheduling comprises

11 in response to determining the number of the resources,
12 scheduling new tasks for servicing.

1 **46. (Previously presented)** The medium of claim 45 wherein:
2 scheduling tasks for servicing comprises scheduling no more
3 than the number of the tasks for servicing.

1 **47. (Previously presented)** The medium of claim 42 wherein:
2 determining a probability $F(t+h)$ comprises
3 obtaining historical task-completion statistics, and
4 from the obtained statistics determining the probability $F(t+h)$;
5 and
6 determining a probability $F(t)$ comprises
7 from the obtained statistics determining the probability $F(t)$.

1 **48. (Previously presented)** The medium of claim 47 wherein:
2 obtaining historical task-completion statistics comprises
3 obtaining a mean and a variance of time historically spent by
4 resources on servicing tasks to completion.

1 **49. (Previously presented)** The medium of claim 42 wherein:
2 determining a probability $F(t+h)$ comprises
3 obtaining historical task-completion statistics,
4 fitting the task-completion statistics into a lifetime closed-form
5 cumulative-probability distribution to determine parameters of the
6 distribution, and
7 evaluating the distribution with the determined parameters and
8 the total amount of time $t+h$ to obtain $F(t+h)$; and
9 determining a probability $F(t)$ comprises
10 evaluating the distribution with the determined parameters and
11 the amount of time t to obtain $F(t)$.

1 **50. (Previously presented)** The medium of claim 49 wherein:
2 obtaining historical task-completion statistics comprises
3 obtaining a mean and a variance of time historically spent by
4 resources on servicing tasks to completion;
5 the cumulative-probability distribution F comprises a Weibull
6 distribution; and
7 the parameters comprise a dispersion parameter and a
8 parameter of central tendency.

1 **51. (Previously presented)** The method of claim 42 wherein:
2 determining an amount of time t comprises
3 determining the amount of time t that the resource has been
4 servicing a task of one of a plurality of different types of tasks; and
5 determining historical task-completion statistics comprises
6 determining the historical task-completion statistics for the one
7 type of tasks.

1 **52. (Previously presented)** The medium of claim 42 wherein:
2 scheduling another task comprises
3 in response to P initiating preparation of a task that may require
4 servicing by an agent at a later time.

1 **53. (Previously presented)** The medium of claim 42 wherein:
2 determining a probability $F(t+h)$ comprises
3 obtaining a historical histogram for task completion, and
4 evaluating a cumulative said probability with the obtained
5 histogram for the total amount of time $t+h$ to obtain $F(t+h)$; and
6 determining a probability $F(t)$ comprises

7 evaluating the cumulative probability with the obtained
8 histogram for the amount of time t to obtain $F(t)$.

1 **54. (Previously presented)** The medium of claim 42 wherein:
2 scheduling comprises
3 in response to P , canceling preparation of a task that could
4 require servicing by a resource.